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NOTES ON SOME PLANTS OF THE ONTARIO AND ST. LAWRENCE BASINS, NEW YORK.

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During the latter part of August, 1923, the writers, accompanied by Professor A. J. Eames, made a botanizing trip by automobile through the eastern half of the Ontario basin of New York and along the St. Lawrence River as far as Ogdensburg. This region is classic ground in American botany and it was our hope to see growing some of the special plants which have long been known from stations in Oswego, Jefferson and St. Lawrence Counties. In this we were highly gratified, although the limited time at our disposal forced us to restrict the close botanizing to a few localities: Mud Pond, southwest of Oswego; the mouth of Salmon River, Oswego County; the sand dunes at Selkirk and near North Pond in Sandy Creek Township, Oswego County; the vicinity of Watertown, Jefferson County; the eastern shore of Chaumont Bay, Jefferson County; the mouth of French Creek, Clayton, Jefferson County; the vicinity of Morristown, St. Lawrence County; and Narrows Island in Black Lake, St. Lawrence County.

Among the plants collected were several which are interesting as indicating range-extensions or new stations for local species. In so far as these seem of sufficient importance for special record they are enumerated in the following notes.

Picea canadensis (Mill.) BSP. Limestone barrens along Chaumont River, near Depauville, Jefferson County.

Reported by Peck at various times from Essex County, with an outlying station in Washington County.

TYPHA ANGUSTIFOLIA L., var. LONGISPICATA Peck, N. Y. State Mus. Rep. xlvii. 162 (reprint 36) (1894). Var. *virginica* Tidestrom, RHODORA, xiii. 242 (1911). Characteristic of lake- and stream-margins wherever we went in the Ontario basin, from Cayuga Lake northward and eastward to northeastern Jefferson County.

POTAMOGETON CRISPUS L. Marly bottom overlying Silurian limestone, cove of Lake Ontario, southwest of Chaumont, Jefferson County.

P. STRICTIFOLIUS Bennett. Marly bottoms of creeks entering the St. Lawrence in Jefferson and St. Lawrence Counties. Plants excessively brittle, forming dense mats in deep water, mostly sterile and heavily loaded with winter buds; occasionally fruiting when reaching the surface.

P. VASEYI Robbins. Deadwater at mouth of Salmon River, flowing over Silurian shales and schists, Selkirk, Oswego County; muddy pool overlying Silurian rock near Ossawegatchee River, Ossawegatchee, St. Lawrence County, heavily fruiting.

POTAMOGETON FRIESII Rupr. Marly bottom overlying Silurian limestone, cove of Lake Ontario, southwest of Chaumont, Jefferson County.

NAJAS GUADALUPENSIS (Spreng.) Morong. Marly bottom overlying Silurian limestone, cove of Lake Ontario, southwest of Chaumont, Jefferson County.

Strikingly different from the common *N. flexilis* in its wiry and stiffly branching stems and rufescent coloring as well as in fruit. For discussion see Fernald, RHODORA, XXV. 108 (1923). *N. guadalupensis* was collected in 1920 by Dr. Harold St. John in Great Pond, Riverhead, town of Southampton, Suffolk County (no. 2541, distributed as *N. flexilis*, var. *robusta* Morong.).

ALISMA GEYERI Torr. Marly bottom overlying Silurian limestone, cove of Lake Ontario, southwest of Chaumont, Jefferson County.

A characteristic species of western America, from Washington to North Dakota and Saskatchewan. Collected many years ago by Asa Gray at Ogdensburg, St. Lawrence County; and in 1918 by Brother Marie-Victorin in the St. Lawrence near Longueuil and Montreal, Quebec.

PANICUM GATTINGERI Nash. Dry sterile soil overlying Silurian limestone by Lake Ontario, southwest of Chaumont, Jefferson County; dry sterile soil overlying Cambrian rock, near Crystal Lake, south of Redwood, Jefferson County; dry sterile soil over Silurian ledges, Morristown, St. Lawrence County.

P. TUCKERMANI Fernald, RHODORA, xxi. 112 (1919). Damp ledges of Trenton limestone, bank of Black River, Dexter, Jefferson County; alluvial thickets and damp shores, Narrows Island, Black Lake, St. Lawrence County.

Presumably of general distribution on alluvial soils in northern and central New York.

P. FLEXILE (Gattinger) Scribner. Dry sterile soil overlying Silurian limestone by Lake Ontario, southwest of Chaumont, Jefferson County; dry sterile soil over Silurian ledges, Morristown, St. Lawrence County.

P. VIRGATUM L. Sand dunes overlying Silurian shales and schists by Lake Ontario, Selkirk, Oswego County, where occur many variations from the typical loosely stoloniferous plant to the densely cespitose var. SPISSUM Linder, RHODORA, xxiv. 15 (1922).

House records,[1] as the northernmost station known to him in New York, Rensselaer in Rensselaer County.

P. AGROSTOIDES Spreng. Alluvial thickets and damp shores, Narrows Island, Black Lake, St. Lawrence County.

An unusually northern station, though not quite so far north as the northeastern limit, in Penobscot County, Maine.

ECHINOCHLOA MURICATA (Michx.) Fernald, RHODORA, xvii. 106 (1915). Common in swales and low grounds throughout the Ontario basin and northeastward at least to St. Lawrence County.

E. MURICATA, var. MICROSTACHYA Wiegand, ibid., xxiii. 58 (1921). Common eastward at least to Jefferson County; forming large colonies quickly distinguished in the field as different from the typical form of the species.

ERAGROSTIS PEREGRINA Wiegand, RHODORA, xix. 95 (1917). As was to be expected this ruderal species was found in the railroad yard at Watertown, Jefferson County, a slight extension northward from previously known limits.

[1] House, N. Y. State Mus. Bull. no. 197: 52 (1918).

PUCCINELLIA DISTANS (L.) Parl., var. TENUIS (Uechtr.) Fernald & Weatherby, RHODORA, xviii. 12 (1916). Saline clay about the salt sheds, south of Liverpool, Syracuse, Onondaga County.

An addition to the list of semi-halophytic plants of the Onondaga region. The coarser typical form of *P. distans* has already been recorded from there (Fernald & Weatherby, l. c.).

ELYMUS ROBUSTUS Scrib. & Sm., var. VESTITUS Wiegand, RHODORA, xx. 90 (1918). Sand dunes overlying Silurian shales and schists by Lake Ontario, Selkirk, Oswego County; damp ledges of Trenton limestone, bank of Black River, Dexter, Jefferson County.

ELEOCHARIS OLIVACEA Torr. Quaking peaty margin of Mud Pond, Oswego, Oswego County.

SCIRPUS SUBTERMINALIS Torr. Quaking peaty margin of Mud Pond, Oswego, Oswego County.

S. HETEROCHAETUS Chase. Deadwater at mouth of Salmon River, flowing over Silurian shales and schists, Selkirk, Oswego County.

Beautifully distinct and forming extensive colonies at the margin of the deadwater, where it is associated with *S. fluviatilis* (Torr.) Gray and *Typha angustifolia*, var. *longispicata* Peck.

CAREX TRISPERMA Dew., var. BILLINGSII Knight. Knolls in peat bog by Mud Pond, Oswego, Oswego County.

C. LONGIROSTRIS Torr. Rich woods on Silurian limestone near Natural Bridge, Limerick, Jefferson County.

JUNCUS BALTICUS Willd., var. LITTORALIS Engelm., forma **dissitiflorus** Engelm. in herb., caulibus 0.4–1.1 m. altis; inflorescentiis dissitifloris diffusis 0.4–1.5 dm. longis.

Culms 0.4–1.1 m. high: inflorescences remotely flowered, diffuse, 0.4–1.5 dm. long.

A very characteristic form of the American var. *littoralis* designated by Engelmann in the Gray Herbarium but apparently not published by him. The form in its most extreme development is very typical of the sands of the Great Lakes, but perfectly characteristic var. *littoralis*, with less diffuse inflorescences and somewhat approximate flowers, also occurs there; conversely, although the common plant of the Atlantic coast is typical var. *littoralis*, the forma *dissitiflorus* is occasionally collected near the sea. The following are representative of forma *dissitiflorus*.

MAGDALEN ISLANDS: swale, Brion Island, August 10, 1914, *St. John*, no. 1820. NOVA SCOTIA: sphagnous hillside, Truro, July 18, 1920, *Bissell & Linder*, no. 20,648. ONTARIO: Wellington, September 4, 1902, *Fowler*. NEW YORK: shore of L. Ontario, Sackett's Harbor, *A. Gray* (TYPE in Gray Herb.); sand dunes north of Selkirk, August 31, 1906, *Rowlee*, August 23, 1922, *Fernald, Wiegand & Eames*, no, 14,209; Long Pond on shore of L. Ontario, Monroe Co., July 3, 1917. *House*, no. 13. PENNSYLVANIA: dunes and marshes, Waldameer, Erie, June 17, 1910, *Pease*, no. 12,979. MICHIGAN: low damp ground, Benton Harbor, September 18, 1910, July 4, 1911, *Lansing*, nos. 2868, 3244; shore of Crystal L., near Frankfort, June 22, 1888, *Wheeler;* swamp, Fayette, August 20, 1901, *Barber;* wet sandy shore of Burt L., Cheboygan Co., July 11, 1917, *Ehlers*, no. 462. INDIANA: slough-borders, Millers, June 24, 1898, *Umbach;* boggy ground, Pine, June 17, 1908, *Lansing*, no. 2723, August 20, 1920, *Peattie*. WISCONSIN: sandy beach of L. Michigan, near Milwaukee, August, 1866, *Lapham* in Engelm. Herb. Junc. Bor.-Am. Norm. no. 2. ILLINOIS: wet sand beaches of L. Michigan, Waukegan, August 16, 1906, *Gleason & Shobe*, no. 315; Lake Shore, Chicago, *Vasey et al.*

JUNCUS PELOCARPUS Meyer. Quaking peaty margin of Mud Pond, Oswego, Oswego County.

MAIANTHEMUM CANADENSE Desv., var. INTERIUS Fernald, RHODORA, xvi. 211 (1914). Dry wooded sand dunes overlying Silurian rock by Lake Ontario, northwest corner of Sandy Creek Township, Oswego County.

The western extreme of the species, not previously known to occur east of Illinois, Wisconsin and Lake Nipigon, Ontario.

SALIX AMYGDALOIDES Anderss. General along water courses northeastward into St. Lawrence County.

Peck has recorded[1] "a single tree" at Lake Bonaparte in Lewis County as at the northern limit in the state, but the species is common on Black Lake in St. Lawrence County.

SALIX SYRTICOLA Fernald. *S. adenophylla* Schneider, Jour. Arn. Arb. i. 158 (1920) in part, perhaps Hook. Dry sand dunes overlying Silurian limestone by Lake Ontario, northwest corner of Sandy Creek Township, and sand dunes at Selkirk, Oswego County.

The typical shrub of the Great Lakes, apparently not heretofore recorded from Lake Ontario.

BETULA PAPYRIFERA Marsh., forma **coriacea**, n. f., foliis valde coriaceis lucidis.

[1] Peck, N. Y. State Mus. Bull. no. 94: 42 (1905).

Leaves strongly leathery, lustrous.—NEW YORK: sand dunes overlying Silurian shales and schists by Lake Ontario, Selkirk, August 23, 1922, *Fernald, Wiegand & Eames*, no. 14,244 (TYPE in Gray Herb.).

Very characteristic in its heavy and thick foliage, but in leaf-outline, pubescence and fruiting aments clearly belonging with *B. papyrifera*.

POLYGONUM RAMOSISSIMUM Michx. Wet Silurian limestone ledges by cove of Lake Ontario, southwest of Chaumont, Jefferson County.

The typical western plant with yellowish calyx-lobes.

P. DOUGLASII Greene. On dry sandstone or gneiss ledges, Narrows Island, Black Lake, St. Lawrence County.

P. ROBUSTIUS (Small) Fernald, RHODORA, xxiii. 147 (1921). Peaty margin of Black Creek, Alexandria, Jefferson County; filling a small brook in a wet swale near the southern end of Black Lake, St. Lawrence County.

P. SETACEUM Baldwin. Along brooks in swampy woods and thickets overlying Silurian sandstone, Mud Pond, Oswego, Oswego County.

A species chiefly of the southern coastal plain, probably more general northward than has been supposed: discovered for the first time northeast of the Carolinas by Bicknell, on Nantucket, in 1907;[1] found by Dr. Witmer Stone[2] on Cape May, New Jersey, in 1909; by Fernald & Long on Cape Cod, Massachusetts, in 1918; and by St. John at Sweezy Pond, Southampton, Long Island, in 1920.

CAKILE EDENTULA (Bigel.) Hook., var. LACUSTRIS Fernald, RHODORA, xxiv. 23 (1922). Beach and frontal sand dunes by Lake Ontario, Selkirk, Oswego County.

SEDUM TELEPHIOIDES Michx. Dry ledges of Cambrian sandstone, Fisher's Landing, east of Clayton, Jefferson County.

GEUM CANADENSE Jacq., var. CAMPORUM (Rydb.) Fernald & Weatherby, RHODORA, xxiv. 49 (1922). Dry sand dunes overlying Silurian limestone by Lake Ontario, northwest corner of Sandy Creek Township, Oswego County.

RUBUS GLANDICAULIS Blanchard. Abundant in damp thicket back of sand dunes overlying Silurian limestone by Lake Ontario, northwest corner of Sandy Creek Township, Oswego County.

[1] Bicknell, Bull. Torr. Bot. Cl. xxxvi. 454 (1909).
[2] Stone, Pl. So. N. J. 424 (1912).

R. FRONDOSUS Bigel. Back of sand dunes overlying Silurian shales and schists by Lake Ontario, Selkirk, Oswego County.

R. PERGRATUS Blanchard. Low sandy pasture overlying Silurian limestone, northeast corner of Sandy Creek Township, Oswego County; thicket by Chaumont River, Depauville, Jefferson County.

R. RECURVANS Blanchard. Sandy thickets and dry open woods, Constantia and Phoenix, Oswego County.

R. ELEGANTULUS Blanchard. Border of open swale over Silurian sandstone, Morse, Hastings, Oswego County.

R. VERMONTANUS Blanchard. Dry sterile bank between Mud Lake and Crystal Lake, south of Redwood, Jefferson County.

R. JACENS Blanchard. Sandy thickets overlying Silurian sandstone, two miles west of Constantia, Oswego County.

R. HISPIDUS L., var. MAJOR Blanchard. Damp thickets in sand dunes overlying Silurian limestone by Lake Ontario, northwest corner of Sandy Creek Township, Oswego County.

PRUNUS PUMILA L. Shrubs 1–2 m. high, on sand dunes overlying Silurian shales and schists by Lake Ontario, Selkirk, Oswego County. For discussion see Fernald, RHODORA, XXV. 72 (1923). Recorded from the same area, "Pulaski, Oswego Co." in Report of the State Botanist for 1909 (p. 35).

BAPTISIA TINCTORIA (L.) R. Br. Dry thickets south of sand dunes overlying Silurian shales and schists by Lake Ontario, Selkirk, Oswego County.

POLYGALA SANGUINEA L. In 1893, Peck noted[1] the bright color of the flowers of plants of the interior (Albany County) as contrasted with the duller coloring of the Long Island plant. The same brilliant coloring was conspicuous in the two colonies seen by us in northern Oswego County.

CALLITRICHE HERMAPHRODITICA L. Cent. I. Pl. 31 (Feb., 1755). *C. autumnalis* L. Fl. Suec. ed. 2: 2 (Oct., 1755). For discussion of nomenclature see Schinz & Thellung, Vierteljahrs. Naturforsch. Gesell. Zurich, liii. 548 (1909). Shallow cove in Guffin Bay, near Point Salubrious, Jefferson County; marly bottom, overlying Silurian rock, mouth of Chippewa Creek, Morristown, St. Lawrence County; muddy pool in sandy swale overlying Silurian rock by the St. Lawrence River, Morristown.

[1] Peck in N. Y. State Mus. Report 46: 122—reprint 42 (1893).

Apparently frequent or common in calcareous waters of the St. Lawrence system in Jefferson and St. Lawrence Counties. Paine[1] cited it as collected by Clinton at Alexandria Bay, Jefferson County and it is in the Gray Herbarium, labeled by Gray as collected at Ogdensburg, St. Lawrence County, by Clinton. Mrs. O. P. Phelps found it in a small stream at Morristown; and it extends eastward to the Ottawa and Richelieu valleys in Quebec and Lake Champlain in Vermont. In New York it seems to be rare west of Jefferson County.

ACER SACCHARINUM L. At the only two stations where specimens were collected (for locality), on Black Creek, Alexandria, Jefferson County and Black Lake, St. Lawrence County, the foliage is green beneath, almost or quite lacking the white bloom characteristic of the species.

VITIS VULPINA L., var. **syrticola**, n. var., a forma typica recedit foliis maturis subtus valde pilosis, petiolis dense pilosis.

Differing from the typical form in having the mature leaves densely pilose beneath; the petioles densely pilose. NEW YORK: sand dunes overlying Silurian shales and schists by Lake Ontario, Selkirk, Oswego County, *Fernald, Wiegand & Eames*, no. 14,388 (TYPE in Gray Herb.; duplicate in Herb. N. Y. College of Agric.). MICHIGAN: top of low sand dunes, New Buffalo, Berrien County, July 20, 1911, *O. E. Lansing*, no. 3287. INDIANA: dry woods on sand dunes, Miller's, September 4, 1911, *Sherff*.

MALVA ALCEA L. Roadside, Scriba, Oswego County.

HYPERICUM BOREALE (Britton) Bicknell. Quaking peaty margin of Mud Pond, Oswego, Oswego County.

LECHEA INTERMEDIA Leggett. Sterile ledges, Narrows Island, Black Lake, St. Lawrence County.

Collected by Mrs. Orra Parker Phelps slightly to the northeast, at Norfolk.

VIOLA AFFINIS LeConte. On rock-talus, Narrows Island, Black Lake, St. Lawrence County.

LYTHRUM ALATUM Pursh. With *Polygonum robustius* in a wet swale near the southern end of Black Lake, St. Lawrence County; appearing indigenous.

CORNUS BAILEYI Coult. & Evans. Sand dunes overlying Silurian shales and schists by Lake Ontario, Selkirk, Oswego County.

[1] Paine, P'. Oneida County, 71 (1865).

Recorded by House[1] from the dunes of Jefferson County. Not very satisfactorily separable from *C. stolonifera* Michx., of which it may prove to be a variety.

SATUREJA VULGARIS (L.) Fritsch, var. **diminuta** (Simon), n. comb. *Clinopodium vulgare*, var. *diminutum* Simon, Bull. Soc. Bot. Deux-Sevres (1903) 207. *S. Clinopodium*, γ *diminuta* (Simon) Rouy, Fl. de France, xi. 337 (1909).

We have been unable to see Simon's original description, but Rouy characterizes var. *diminuta* as follows: "Plante réduite dans toutes ses parties; verticilles pauciflores." Such a plant, with foliage-leaves at most 2.3 cm. long, with the bracteal leaves barely exceeding the verticels and with the calyx shorter than in the ordinary plant (mature verticels only 1–2 cm. in diameter), is a characteristic weed of roadside-fencerows and borders of limy pastures near Watertown, Jefferson County, New York (*Fernald, Wiegand & Eames*, no. 14,431).

AGALINIS PAUPERCULA (Gray) Britton. Frequent in peaty, sandy or damp rocky ground from Oswego County to St. Lawrence County.

House records[2] the salt-marsh species, *A. maritima* Raf., as collected "at Mud Lake near Hannibal, Oswego County," a most singular habitat for a halophytic species for, as Rowlee clearly states in his account of the region, "Mud Lake is by no means a saline place."[3] It is bordered by a peaty quagmire full of *Lycopodium inundatum* L., *Woodwardia virginica* (L.) Sm., *Eleocharis olivacea* Torr., *Scirpus subterminalis* Torr., *Drosera longifolia* L., *Utricularia gibba* L., etc., back of which is an acid bog with the ordinary plants of acid bogs. Our plant from there is very characteristic *A. pauperculа*.

LONICERA GLAUCESCENS Rydb. Dry wooded sand dunes overlying Silurian rock by Lake Ontario, northwest corner of Sandy Creek Township, Oswego County.

Near if not quite the eastern limit of the species.

CAMPANULA ULIGINOSA Rydb. Common in swales of Oswego County.

C. aparinoides Pursh seems to be rare in northern, central and western New York, its place being taken by *C. uliginosa*, which is distinguished not only by its stiffer habit, narrower and more elongate

[1] House, N. Y. State Mus. Bull. nos. 243–244: 32 (1923)..
[2] House, N. Y. State Mus. Bull. nos. 205–206: 30 (1919)
[3] Rowlee, Am. Nat. xxxi. 795 (1897)

leaves, strongly ascending mostly naked peduncles and somewhat larger and often bluish corollas; but especially by the calyx and capsule. Measurements of all the specimens in the Gray Herbarium and the herbarium of the New England Botanical Club give the following results.

C. APARINOIDES: naked portion of peduncle 0.3–3.5 cm. long; flowering calyx 1.3–3.8 mm. long, its lobes 0.7–2 mm. long; capsule 1.2–2 mm. long.

C. ULIGINOSA: naked peduncle 1–6 cm. long; flowering calyx (3–)4–6.7 mm. long, its lobes 2–4 mm. long; capsule 3.2–5 mm. long.

BIDENS DISCOIDEA (T. & G.) Britton. Characteristic of swales, inundated shores and alluvium from Oswego County to St. Lawrence County.

These stations apparently connect with those on Lake Champlain, Vermont[1] and in the Ottawa valley.[2]

FOMES ROSEUS (A. & S.) CKE. AND TRAMETES SUBROSEA NOM. NOVUM.

JAMES R. WEIR.

THE conflicting statements in the literature concerning the identity of *Fomes roseus* and the fungus commonly called "*Trametes carnea* Nees" have led to confusion in the minds of students and investigators engaged in the practice of forestry and in the preservation of structural timbers. This confusion is apparently due to a limited experience of the authors in studying the species in the field and superficial examination of the structure and appearance of the organism. For example, the insistence that "*T. carnea*" is an annual plant (15), that *Fomes roseus* may be distinguished by its ungulate form and stratified tubes (14), that the context color is the same in both species (15), and that one is a form or variety of the other are some of the statements published over and over again, none of which can be substantiated in fact.

It is the purpose of this paper to point out some characters which definitely establish the entity of each of the species, to furnish a

[1] Blake, RHODORA xvi. 40 (1914).

[2] Rivière-aux-Moustiques, near Ottawa, Ontario, *Rolland*, no. 8197, distributed as *B. frondosa*.